California GARDEN

OCTOBER - NOVEMBER 1970

50 cents

Floral events . . .

to enjoy

Floral Association General Meetings on third Tuesdays. Refreshments before meetings.

October 20, 7:30 p.m. Mr. Harden will speak and demonstrate on *"How to Graft Cactus."*

November 17, 7:30 p.m. Our own "Vegetable Grower" will speak on growing vegetables with your flowers and eating them. *"Please Eat the Flowers."* Rosalie Garcia.

December 8. CHRISTMAS BAZAAR & TEA. 11:00 a.m., Floral Building.
1:00 p.m. *"Christmas Arrangements—Traditional and Modern"* presented by Dorothy Marx in the Puppet Theater. Free for Floral Members, $1.00 donation for non-members.
Chairman: Mrs. A. T. Laughlin (295-5747)

to appreciate

Admission by Floral Membership Card

October 25 (Sunday, 1:30-5). By popular request George Kempland is opening his beautiful garden and his fascinating house again. DON'T MISS IT! Original ideas galore by a master gardener and designer. 3708 Arizona Street.
Chairman: Mrs. Eugene Whigham (296-1251)

to go

October 3-4 (Saturday, 3-9, Sunday, 10-4). Pacific Beach Garden Club Flower Show, *"Moments, Moods and Memories."* Pacific Beach Recreation Center, Diamond at Gresham. Open to the public. Free.

October 4 (Sunday, 1-4). Open House, Floral Building, Balboa Park. La Mesa Garden Club. Open to the public. Free.

October 15 (Thursday, 1-5). Floral Designer Club, *"In Nature's Image."* Valley Colonial House, 4810 Whitsett Ave., No. Hollywood. Open to the public. $1.75.

October 17-18 (Saturday, 2-8, Sunday, 10-5). La Jolla Garden Club's first Flower Show, *"La Jolla—Our Jewel."* La Jolla Recreation Center, 615 Prospect St., La Jolla. Open to the public. Free.

October 25 (Sunday, 10-4). Point Loma Garden Club's fourth flower show, *"Flower Power."* Floral Building, Balboa Park. Open to the public. Free.

October 26 (Saturday, 9-3). Los Angeles, District of California Garden Club, Inc. eighth cultural symposium, *"Environmental Beauty for the Home."* Open to the public. $7.00.

November 1 (Saturday, 1-4). Convair Garden Club Chrysanthemum Show. Floral Building, Balboa Park. Open to the public. Free.

November 14-15 (Saturday, 2-7, Sunday, 10-4). Crown Garden Club's eleventh Fall Flower Show, *"Shifting Sands."* Coronado Women's Club, 1735 Strand Way, Coronado. Open to the Public.

November 15 (Sunday, 1-4). San Diego-Imperial County Iris Society annual Reblooming Show. Floral Building, Balboa Park. Open to the public. Free.

November 22 (Sunday, 1-4). San Diego Orchid Society Open House. Floral Building, Balboa Park. Open to the public. Free.

November 29 (Sunday, 1-4). North County Shade Plant Club Open House. Floral Building, Balboa Park. Open to the public. Free.

December 5-6 (Saturday, 1-6, Sunday, 10-5). La Mesa Women's Club—Garden Section annual Christmas Show. La Mesa Women's Clubhouse. Open to the public. Free.

to tour

October 21 (Wednesday, 9:00 a.m. Balboa Park, 9:30 a.m. La Jolla). **Los Angeles County Arboretum and gardens and nursery of Dr. and Mrs. Samuel Ayers.** Floral Members $4.00, others $6.00. Take lunch to be eaten in Arboretum picnic area. *Hostess: Mrs. Eugene Whigham.* 296-1251.

November 19 (Thursday), **21** (Saturday). **Ensenada Shopping Tour.** (La Jolla 8:30 a.m., Balboa Park 9:00 a.m. $8.50. American Bus to border, modern Mexican Bus to Ensenada. Stops at glass factory and Rosarita Beach Hotel. You pay-we make reservations at French Restaurant (optional).

November. *Date and price to be announced.* Point Loma Garden Club benefit for California Garden magazine. **Laguna Beach Shopping Tour.**

December 5 (Saturday, 8:30 a.m. Balboa Park, 9:00 a.m. La Jolla). **Descanso Gardens and Hospitality House Christmas Decoration** Show in La Cañada. Lovely camelia gardens, formerly home of Manchester Body. $6.00. *Hostess: Rosalie Garcia.* 264-4167.

December 15 (Tuesday). **Christmas Light Tour of San Diego.** Spirited refreshments. $2.50. *Hostess: Mrs. C. H. MacDonald.* 298-9283.

January 16 (Saturday, 8:30 a.m. Balboa Park, 9:00 a.m. La Jolla). **Port of Call Shopping Tour** in San Pedro. $6.00.

February 13 (Saturday). Indio Date Festival.

March. Rancho Santa Ana Botanic Gardens.

March-April. Spring Desert Tours.

May. Julian Wildflower Show.

For reservations and information call Floral Office (232-5762) or Mrs. Innis (225-1464) or Mrs. Bunker (281-5027)

to learn

Flower arrangement classes every Monday morning 10-12.

1st Three Mondays: *Sumiko Lahey,* Teacher Sogetsu School of Japanese Flower Arrangement. Ikebana: certificated awarded.
4th Monday: Mrs. Kirkpatrick. Traditional and Modern Arrangements. Chairman—Mrs. R. Hoyt (296-2757).

FRIDAY WORKSHOPS, 10-12. $1.00.
October 23. Fall Arrangements—Loretta Crocker.
November 20. Holiday Arrangements—Rosalie Garcia.
Chairman: Mrs. Innis (225-1464).

CALIFORNIA GARDEN

Vol. 61 October - November 1970 No. 5

THE COVER

Isn't it wonderful to live in a place where we can pick roses in the fall instead of putting up storm shutters and taking in the geraniums?

The cover was done as an experiment to see if a rose could be painted in black. The artist, Ethel Schillreff is a well-known painter of flowers, especially roses, and a painting teacher. The original was done with black oil paint on canvas. We think it is a red rose; What color do you see?

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San Diego Floral Association Incorporated March 1910

The San Diego Floral Association

Founded 1907 — Incorporated 1910

San Diego's Oldest and Largest Garden Club

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A Voice . . .an editorial

AUTHORITIES DIFFER on what is the order of importance of our World problems. Generally they agree that it is the population or a result of it which is first. Having lived for many years in a country where people have a free choice in determining how many children they have and where there are very few abandoned children, I have been favorably impressed. The children were wanted and loved and disciplined and taught because their parents wished them to be something special. As I look about at the ever increasing numbers of uncared-for, unwanted children and learn of the tremendous volume of abandoned babies in our country, I must agree that population is a problem.

Tremendous populations cause untold problems, the worst being pollution and starvation. Residents of overpopulated countries consume little meat because all growing food must be eaten by the people, not fed to animals. In some areas even the roots of trees have been eaten and armed guards must stand over the seedling trees which are planted by the government in an attempt to reforest. Most authorities agree that the World is about at its maximum food production now. This is why new plants, new strains and cross-breeds of crop plants are being developed: it is hoped that production per area can be increased. Good farm lands are being destroyed every day. Even here in our area, think of the valuable farm lands which are now shopping centers, parking lots or homesites or factories. Yet there is a great amount of land which is barren and completely unuseable for farming which could have and should have been used for these purposes, not farm land.

Tremendous problems, which you and I cannot hope to solve singlehandedly —but we can do something. Fortunately we live in a country where each person has a voice. Let's use it. We also have the privilege to do pretty much as we wish in our own homes. Let's do that, too.

Here are some of my suggestions for your voice: Write to your elected representatives—city, county, state, national—and express your views on (1) the use of farm land for anything except the growing of crops and plants; (2) the cutting of trees (many cities in the U.S. and many countries of the world require that a permit to cut a tree be obtained from a citizens committee); (3) the preservation of lands in the public domain—particularly the vegetation on them and the wildlife; (4) preservation of natural resources and reducing pollution by limiting size and power of vehicles used on, over and in the land (5) population growth: and (6) if it is your right or the right of a public servant or elected representative to tell you how many children you should have.

Write to your local papers and request that they print daily information concerning your representatives—his attendance at sessions, if he voted and how he voted. It is a matter of public record.

Write to your local school board and express your views on courses for students on the care and preserving of our land, plants, animals and people. Tell them how you feel about teachers at any level who use the classroom for political or personal purposes.

Here are some of my suggestions for your home: (1) Plant! Try to choose things which require a minimum of care and water for most of the planting to conserve resources and yourself. Include fruits and vegetables. (2) Wash the plants regularly with a strong spray of water as an oily, smoggy covering on the leaves reduces their function. Sometimes a light wash of a weak soap solution (not detergent) will help. (3) Avoid pesticides but plant a variety of materials. This encourages one pest to eat another one. It has been found that when only one plant is grown in an area, diseases or its pest becomes rampant and soon nothing will grow. (4) Keep dead leaves, etc. off the ground. Put them into compost heaps and then dig them in. Pests breed in refuse under plants, not in compost heaps. (5) Put a large rock or brick in your toilet bowl storage tank. This cuts down on water without disrupting the mechanism. I am sure that there are many other things you can think of which I haven't mentioned, too.

Those of us with knowledge should freely help to educate the young. Introduce children to the wonder of plants, encourage them to preserve not destroy. Even a two-year old loves to plant and grow radishes and nasturtiums in a pot if no open ground is available. Start them young and help them to accept plants as a way-of-life not a chore or bore.

Be proud to be a grower and preserver of plants. Be not ashamed to have a few clean dirt stains under your fingernails for the hands which find rewards, enjoyment and pleasure in the good earth rarely belong to a person who revels in the mental and physical filth of the land!

Barbara S. Jones, Editor

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BARBARA S. JONES, Editor.

WILTED GRASS CUTTINGS — especially if seed-free—make an excellent mulch and a good heat-producing composting agent. Worked into the soil, it has fertilizing qualities. One hundred pounds of dried grass cuttings analyzed out to show 1.2% nitrogen, 2.0% potash and .3% phosphate, or more than a pound of nitrogen and two pounds of potash. Grass cuttings on the compost pile provides heat that hastens the breaking-down process.

L.S.

BONE MEAL becomes available to plants as a fertilizer after about 90 days in the soil. A standard potting mix is two parts garden loam; one part organic material; and one tablespoon bone meal for each pint of mix. A 4" pot holds one pint.

L.S.

Archie Owen of Leucadia is the new President of the Spuria Section of the American Iris Society, a nationwide organization. She has been the President of the local Iris Society group.

Tulips

Ernest Chew

NOW IS THE TIME TO PLANT TULIPS. This is the method used at the Balboa Park Nursery to produce those outstanding tulips which are on display during the spring in the Botanical Building behind the lily pool. Beautiful tulips can be grown in California.

1. Obtain Holland grown bulbs. Plant them immediately or store them in the lower part of the refrigerator for no more than two weeks before planting. (Tests have shown that those kept longer do not do as well.)
2. The number of bulbs placed in each clay pot vary with the size of the pot used. The bulbs must not touch the sides and the flat side of the bulb should be towards the wall of the pot.
3. Place a well drained potting mix (½ coarse sand and ½ commercial planter mix) in the pot, gently lay the bulb on the mix, fill in around the bulb until it is ¾ covered, and water pack the soil.
4. Heel the pots in wood shavings in a box and place in a shaded area (lath or shade cloth covered). Keep cool. Pots should be exposed about 1". Keep moist but not wet. (see photo).
5. Lay two layers of shade cloth over the pots. Remove the shade cloth when 1" of green tips show above the bulb top. (see photo).
6. When the first color begins to show on the bud, remove the pot from the wood shavings and move the pot to a place where it will receive sun and be warmer.

Plant now for "Tulips in the Spring."

PHOTOS BY BETTY MACKINTOSH

Ernest Chew is the Supervisor of Nursery and Landscaping, City of San Diego. He is attempting to introduce new and interesting plants to our city as well as produce beautiful displays of perennial favorites.

Sunflower Seeds . . . Not for Birds Alone

Rosalie Garcia

SUNFLOWER SEEDS trigger the image of an ill-natured and garrulous parrot on a perch, cracking seeds and scattering them wherever they fall. That is about as far as the average American thinks about sunflowers. But, this largest and most dramatic member of the *Compositae* family (same as the chrysanthemum), has been around for a long time, and was a staple source of food before the dawn of history. It grew all over the world except in the lush tropical jungles. Armies could and did travel on the seeds alone and they were government issue in the Russian armies. The peoples of Eastern Europe and Asia often were able to survive droughts and famine with no other food than the seeds of the sunflower. Encased in air tight and tough shells, the nourishing kernels were light to carry and kept well in any climate.

Commercial crops are now grown in all the Slavic countries, Canada and the Dakotas. Even California has commercial acreages in Contra Costa County, but the largest are in San Joaquin County where 7,600 acres were grown last year. Sixty-four hundred tons of seed were harvested at $180.00 a ton. (Figures from San Diego County Department of Agriculture.) Processing plants are small, but cold presses for oil and hulling the seeds by a tumble and blowing machine are concentrated around Los Angeles. Some seeds are boiled in salt water, bagged and sold at snack stands. Most dealers in shelled nuts have the seeds for sale which are cheaper than other nuts. They can be substituted in cooking and candy making for other nuts. They add texture and delicate flavor tossed in salads, and can provide a complete meal when mixed with cooked vegetables.

The Indians ate the seeds from the wild sunflowers, and they cultivated the *Helianthus tuberosas* for the little knobbed tubers that we call Jerusalem artichokes. Our Slavic immigrants brought their love and appreciation of sunflowers with them to this country and planted them wherever they settled, but it took a consciousness of diet and food values, too, and a scare about oils to get a real valuation. The oil is naturally polyunsaturated and the seed is 48% fat. It has almost the highest protein content of any plant food, 28%. In addition it has 12 minerals, 17 vitamins, including E and B, and 10 of the essential amino acids, which most plant food lack. This seed makes it possible for one to be a vegetarian and be properly nourished.

Now, why isn't everyone rushing out and buying pounds of this nourishing, palatable and cheap food? There are oils, flour and the kernels that could be a staple. They are for sale almost exclusively in Health Food stores where they are expensive. The General Public does not shop in such stores. The demand is not great enough for the Supermarkets. Why is the demand so low? The General Public is not aware of the value. Sunflowers are common enough as bird seed, and people don't eat "polly foods." Some will eat them as snack food, and children often like them. But peanuts are easier. Peanuts are fine food, but sunflowers exceed them in many ways, especially digestibility.

Vaguely we remember seeing the tall plants with the big faces following the sun in fields where birds have dropped the seeds, or in corners of poorly kept places, or a few rows in a vegetable garden, but they were casual plants. We have admired the Van Gogh and Monet paintings of the glowing sunflowers and have bought the prints for our walls, but we have not appreciated them as food.

But, unheralded and quietly the hybridizers have been at work and have come up with strains of the *Helianthus annus* that we can be proud of. The usual varieties we find in the seed racks are: The Mammoth Russian, The Manchurian and the Gray Stripe. Although there are both perennial and annual varieties, the annuals are most commonly cultivated. Some of the seeds are brown with red stripes, and they make the most glowing faces.

Children are enchanted with growing these plants, for they get big quickly. To encourage them the Organic Gardening Magazine has a contest every year for the biggest and tallest. (Note Garden Clubs, this could be a fun junior gardener contest.)

Sunflower Cultivation

To grow your own crop, plant seeds in April about ½ inch deep in rich, loose soil with good drainage. They will need deep watering, for they develop an extensive root system. A row at the back of the garden is fine, or on a hillside where it is not too windy. The present tendency is for the stalks to be too tall, and require staking. Hybridizers are

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Rosalie Garcia has been growing vegetables "all her life." She enjoys growing and eating new vegetables. She is a graduate of UCLA and a former teacher.

PHOTO BY BETTY COOPER

working on shorter and sturdier stalks, for ten and twelve feet is too tall. Average flower heads are from 15 to 18 inches in diameter and heavy.

The Robert Whiteds of La Mesa thoroughly appreciate sunflowers and grow them very well on a hillside estate. They are now showing one that was 108 inches tall (9 ft.) and had a flower head measuring 26½ inches in diameter. They harvest the heads with several inches of stalk, and hang them with heads down in a dry, cool place in September and October and keep them for "spit and chew" all the months of the year.

Enemies of sunflowers are ants and aphids and blue jays. All birds like the seeds and putting gauze over the heads will protect them, but the blue jays can even penetrate the gauze. Feed the jays something else, and spray your favorite against the aphids. They hate red pepper and garlic, so make one of these sprays.

Are sunflowers for the small home garden? Why not? Space may rule out a great number of plants, but they are decorative accents at the back of beds in full sun, against the hot side of the garage or the back fence. They are tall and dramatic, bright and colorful, and a challenge to see how much bigger than the dahlias, the same family, they will be. Sunflowers are at their colorful best late in the summer when there are not many other flowers, and can be gone by the time the fall cleanup comes around. After they are dried one can keep his pockets full for munching. What food is more nourishing and convenient?

Sweet Peas

Dorothy Marx

LATHYRUS ODORATUS, SWEET PEAS TO MOST OF US, are well-loved annual vines which deserve the best in seed and care.

Years ago I used to dig a trench to fill as the seedlings grew and provided a trellis to which their tendrils could cling. It was always a chore, never easy to find a suitable spot and, in the too-cold or too-hot climate of my earlier days, the end result always fell short of seed catalog promises.

Three years ago we landscaped our new front "lawn" in La Jolla with prostrate junipers and, to cover the bare spaces between the young evergreens, planted one package of Knee-Hi sweet peas in mixed colors. The thirty seeds, one to each space, were planted an inch or two deep in late November or early December. Knee-Hi are early-flowering and heat-resistant but, like all peas, grow best in cool weather.

Our soil has been improved with enough humus to make cultivation easy and we water well each week and foliar-feed with an all-purpose fertilizer once a month.

Our care was what the sweet peas wanted because the spaces between the evergreens were covered six weeks after planting and in another month the junipers nearly disappeared under a tangled but delightfully scented mass of flowers.

The dominant color was pink in every tint and tone to deep red but there were plenty of purples and a few pure white. The spread of individual plants was so large people asked how I had managed to get "drifts" of one color.

Our plants continued to flower with unbelievable vigor until early May when foliage gradually yellowed and we pulled them out in mid-May. The slightly-yellowed evergreens recover quickly from their colorful cover. Incidentally, we replace the sweet peas with plants of purplish Sugar Daddy petunias to keep admiring glances coming our way right up to sweet pea time. This summer, for the first time, a few volunteer pea plants joined the petunias.

Knee-Hi sweet peas are long-stemmed and, if well-hardened, last nearly a week in the house. The foliage, which is especially graceful and should always be included in arrangements, outlasts the flowers.

For three years our yard has drawn compliments and requests for flowers and seeds. By popular demand more Knee-Hi sweet pea seeds will go in about December first getting ready for another command performance.

Dorothy Marx has been growing plants as "long as she can remember." She is a National Council of State Garden Clubs Judge with a Masters Certificate and is a Council Landscape Critic. She teaches and lectures on flower arranging and house plants and their care. She is one of the founders and is president of the La Jolla Garden Club.

When a forest burns so does his food. Use fire carefully.

The lighthouse was built in 1854 and from 1855 to 1891 served as a beacon for passing ships. The new lighthouse was built because fog often obscured the light, but the lighthouse attendants lived there until the early 1920's. It is now part of the Cabrillo National Monument.

Flowers in the Lighthouse

Verlan King

PHOTOS BY ANNE GALLOWAY

ONE OF OUR MOST REWARDING PROJECTS, a continuing "labor of love" of the Point Loma Garden Club, is our work at Cabrillo National Monument on Point Loma where we are doing all of the seasonal dried arrangements seen in the living quarters of the old lighthouse.

Many years ago we chose the emblem of the original lighthouse as the insignia of our garden club. Then, one of our members, France Conoly, was inspired to contact Miss Lawrence, historian at the monument. She is responsible for the authentic furnishings in the rooms of the lighthouse. Through her, plans were made for the Point Loma Garden Club to do the traditional arrangements which are changed at intervals throughout the year.

The arrangements seen at the lighthouse are somewhat in the Williamsburg manner but less elaborate, expressing more closely the Western heritage which we love. These are in keeping with the simple furnishings of that day, using natural plant materials which the lady of the lighthouse might have had at her disposal. Beverly Kulot and Lorraine Warner did the original research.

Beverly Kulot has done some special research to learn the early methods of drying and preserving the wide variety of local weeds, leaves and flowers which are used in the period designs. Our research has shown that the flowers which were probably cultivated by the "lady of the lighthouse" were: Bluebell, Carnation, Cineraria, Cockscomb, Cornflower, Daisy, Forget-me-not, Foxglove, Geranium, Marigold, Mignonette, Morning Glory, Narcissus, Pansy, Rose, Stock, Tulip and Vinca. We have discovered that the usual flower arrangement of this period was a compact, mass arrangement which was somewhat heavy and emphasized bold colors and contrast rather than harmony. Many varieties of flowers were combined and thick petaled flowers were popular. Usually the arrangements were wider than high, too. If "she" followed the current trends she would have used

Container: modern ceramic reproduction of antique bronze bowl. Material: dried everlasting flower and Tea tree. Arrangement is on the fireplace in the living room.

Verlan King has a major in Journalism and is the Publicity Chairman of the Point Loma Garden Club.

blown, pressed hobnail, cranberry, milk, amber cut, or painted glass for a container. A footed china vase, deeply gilded of ornate shape and form might have been a treasure. Vases shaped like baskets or shells or even cornicopias were popular. Old pictures tell us that even an ironstone tureen or a pitcher was sometimes used. We have a neighborly feeling for our lighthouse and want to give it our best by presenting some of our native plant materials in historic arrangements where many may observe a few of the decorative facets which are representative of San Diego's past.

As the Point Loma Garden Club nears its tenth anniversary, we can reflect that we have grown from a small group that gathered monthly in homes to a larger membership meeting in a community hall, to a large active group now meeting at the Floral Building. Through the years we have engaged in most normal garden club activities, experienced many changes and had our quota of ups and downs; yet, many of our charter members are still active. Even though we have a particular interest in the Point Loma area, working through our club and assisting neighbors with their gardening, the club has made many community contributions. We have helped to save the remaining Torrey Pines, enhanced Balboa Park with a San Diego Rose bush, given large magnolia trees to the Children's Hospital and given donations for World Gardening. Junior gardening is encouraged and given special emphasis in our annual flower shows and speakers have been provided to schools. We have been supporters of *California Garden,* now subscribing 100 percent. As part of the 200th Celebration, we presented our city with the shrubbery around the Peace Monument in Old Town, where California began. Under the leadership of Mrs. G. Lodenback we make and deliver to local hospitals over 100 dish gardens per year. Always busy helping to make San Diego more beautiful, we end each year with an International Luncheon cooked by our members and served in a member's garden. As many of us have lived "round-the-world" we like food and fun with our flowers.

Container: basket. Material: straw flowers, eucalyptus, etc. Arrangement is on kitchen table.

Lantern on wall of kitchen.

MUMS

Virginia M. Innis

CHRYSANTHEMUM GROWERS have developed chrysanthemums to the point where they are one of the most desired and attractive flowers on the market. Some of the huge daisy forms and silky spidery poofs are irresistible. Persons not awed by the super size or surprising forms are attracted by the appealing colors.

We are fortunate that we live in one of the mum-producing centers of the world and we can choose from a wide variety at nurseries, florists, and supermarkets. A choice plant can be purchased very reasonably. How long will they last? I presently have an attractive plant I purchased six weeks ago.

I purchased my plant when it was starting to peak, not in fullest bloom. At first the flower form was like a saucer, now it is shaped like the head of a rocket, but the flower is still attractive.

Standard ball type mums have incurving petals that turn toward the center of the mum. The reflex type has petals that turn away or down from the center of the flower. Some of the reflexed can have the rocket cone form and be fresh.

When purchasing chrysanthemums, look for turgidity of the stems and leaves. This turgidity should also extend to the petals which should look crisp. The eye or center of the flower should be tight and firm—the center tends to become feathery as the bloom ages. In the incurving or ball type mums an increasing rotundity indicates age. The ball with flatness is approaching maturity, while the full fat ball is in the peak. (The same standards are used in selecting cut mums.)

Do not despair if you are presented with a pot of mums at their peak. Mums are hardy and will still give you several weeks of enjoyment. Water your plant; don't let it become bone dry. Deep watering and draining at the sink should be done about twice a week. In a warm, dry room the plant may need more watering. Touch the plants' soil every day or two to know the condition. I usually don't feed the potted plants, as they seem to have stored enough food to sustain them.

When the bloom is spent, cut off the flower heads, pull the clump from the pot and plant it as one unit.

Chrysanthemums are a seasonal plant when grown in the garden. The blooming is triggered by the shortening of the day as fall approaches. Commercial growers regulate the lighting to "fool the plant." Because of the lighting system used in greenhouses, mums are no longer a seasonal plant. Mums are available year-round. Few potted plants stay as attractive as long or are as inexpensive as mums. While they are not fragrant, they don't smell bad. With all the new developments someone will possibly produce a sweet-smelling one. Until then, the mum has enough good qualities to enhance any room.

GO NATIVE

Helen V. Witham

OUR STATE OF CALIFORNIA is high, wide, and deep—a long way from top to bottom on the map, a long way from the top of Mt. Whitney to the bottom of Death Valley. Consequently its vegetation is extremely varied. On cold, windy, mountain tops one group of plants will grow, while sandy deserts, mountain meadows, salt marshes, and foothills each have their own special associations of plants which have evolved to meet the conditions of each particular environment. Many native plants will not grow outside of their special habitats, but there are many others which can be grown in places where conditions are quite different. In other words, we can cultivate them.

Two large Botanic Gardens in Southern California have been experimenting since 1927 with the culture of our native plants. These are Santa Barbara Botanic Garden and Rancho Santa Ana Botanic Garden,* in Claremont. Here, on a large scale, natives are being grown under garden conditions, in climate and soil quite different from those of their "homelands." In many cases they have taken happily to cultivation, flourished, and reproduced themselves in the Gardens. In other cases they have dwindled in number and faded away, or just plain died off, and quite quickly. But it has been proved that many of them can be "grown," as opposed to just "happening." Some of them can't, and some you wouldn't want anyway.

In connection with growing native species, these Gardens have introduced hybrids or selected forms that are especially suitable for cultivation or that are exceptionally attractive. The groundcover strawberry was developed at Rancho Santa Ana, as was the hybrid coral bell, 'Santa Ana Cardinal.'

In addition to engaging in research studies and publishing informative books, articles, and pamphlets, Garden staff members teach classes, answer inquiries, and give lectures and demonstrations.

The biggest demonstration of all, in each case, and the one which generates breathless delight in spring months, is the Garden itself. All those acres and acres of wildflowers. (A digression here —I'm wondering why the word "wildflowers" conjures up a more appealing picture than "native plants?" More color perhaps? At any rate, the word as used here includes the trees and shrubs that are there in the background of the mental picture. They are most emphatically there in the Botanic Gardens that I am talking about.) What I started to say was: All those acres and acres of wildflowers, and no weeds! Now there's the stuff dreams are made of!

Although the plantings are there primarily for scientific purposes, they are arranged with careful consideration for their appeal to the eye of the visitor, and they are just as good to look at as they are to study.

The other side of this aesthetic value coin is this: while admiring or photographing these labeled plants you may also learn their names, learn to recognize them, and this will add to your pleasure while traveling. Then too, you will be able to consider them as possible candidates for planting in your own garden.

For some species whose native habitats have been overrun by urbanization or cultivation, these Gardens provide a refuge. Providing refuge will become increasingly necessary in the future—the only "wildflowers" of certain kinds to be seen will be those in gardens somewhere. Let's hope that before long we will have our own Botanic Garden of native plants, where we can grow, study, and enjoy them.

Now to answer some of your which, where, and when questions. Among the natives you might like to grow are:

FERNS

Giant Chain Fern *(Woodwardia fimbriata)* and Sword Fern *(Polystichum munitum)*. These are both evergreen ferns with vigorous, long-lasting fronds. Can be found in most nurseries. A more delicate fern is the Five-Finger *(Adiantum pedatum)*. These can be planted out at any time of year.

ANNUALS

Available in many seed racks: California Poppy, Clarkia, Godetia, Nemophila. It is possible now to buy California Poppies in selected colors of red, pink, or cream, as well as doubles and ruffles. Some people feel that this is more fun, while others feel that it is somehow not quite right—that our poppies should be golden. You will have to decide this for yourself.

Other annuals are equally easy to grow, and if you don't know what they look like you will have the added anticipation of—what? Something gold? Blue? Pink? Tall? Fragrant?

The best time to plant these seeds is during the first good rain of the season. If splashing around in the rain is not your cup of tea, then plant them after the rain, or just before. Annual seeds are tiny, and one way to assure even distribution is to mix them into a quart or so of sand and then plant the sand. Cover very lightly, or just rake in and hope it rains again tonight, to settle them firmly. If early rains sprout the seeds, and then dry weeks go by, of course a good sprinkler soaking is in order.

For sources of seeds, see below.

SHRUBS

Toyon *(Heteromeles arbutifolia)*, sometimes called Christmas Berry or California Holly. Widely available and quite accommodating. Plant in a dry corner, or at the edge of the lawn, or anywhere in between, but not where it overhangs a walk or patio, unless you wish to spend the weeks of the flowering and fruiting seasons with broom in hand.

Helen V. Witham, a native San Diegan, has always been interested in wildflowers. She constructed the canyon trail wildflower garden in her home 7 years ago. For the past 5 years she has been studying, writing, and lecturing on the native plants. She is an active member of The California Native Plant Society and the Theodore Payne Foundation for Wildflowers and Native Plants. She is assistant Curator of Botany at the Natural History Museum where she also teaches classes and leads nature walks.

Coast Live Oak (Quercus agrifolia) *in garden of Mr. and Mrs. Stanley Miller, 1590 E. Chase Ave., El Cajon. Set out in 1937 from a five-gallon can. This tree was planted several years before the Miller home was built. It was watered regularly along with a number of azaleas and camellias which were planted beside it. When the house was built the ground level was lowered somewhat so that the grade slopes away on all sides from the base of the Live Oak. Since that time neither soil nor mulch has ever been allowed to build up around the base. The tree has been pruned regularly in order to develop and maintain the beautiful branch structure shown in the photograph. If you wish to grow big oaks from little acorns remember this: an acorn is not a seed in the usual sense. It is a tiny growing plant which must not be allowed to dry out. If early planting is not possible, it may be stored in damp moss in the refrigerator, but not in the car glove compartment or in Johnny's pocket.*

PHOTO BY ANNE GALLOWAY

THREE FOR GROUNDCOVERS

Evergreen Currant *(Ribes viburnifolium)* has deep green roundish leaves with a fragrance like that of grated lemon peel, and clusters of tiny maroon flowers in January. It has never fruited for me. Spreads by suckers or layers to form mounding thicket about two feet high. Good under high shrubs, or to hold a bank.

Island Bush Snapdragon *(Galvezia speciosa),* native on Santa Catalina, San Clemente, and Guadalupe Islands, forms a most attractive mounding shrub. Its arching branches will root at the tips. This shrub stands out because of the unusual color of its foliage—a rather light, bright green. Flowers are inch-long, Christmas-red "snapdragons" which appear at the ends of the branches the year around. Best in partial shade, except on immediate coast.

Dwarf Coyote Bush *(Baccharis pilularis* var. *pilularis),* forms a dense, irregular mat one to two feet in height. Leaves are about ½-inch long, on green stems. Plants available are propagated from cuttings, which assures a certain uniformity in growth habit and, since only staminate plants are used as stock, saves the annoyance of having fluffy seeds blowing around and starting plants where they are not wanted.

TWO EFFICIENT BARRIERS

Oregon Grape *(Berberia aquifolium)* and Nevin's Barberry *(Berberis nevinii),* have spine-edged leaflets, lovely golden yellow flowers, and bright fruits, blue for the first-named, red for the second. These are summer berries, well-liked by birds.

Note: *Berberis nevinii* is already a homeless refugee, from San Fernando Valley.

SOURCES

Theodore Payne Foundation
10459 Tuxford St.,
Sun Valley, CA 91352

Seed and plant list. Seeds by mail, plants will have to be picked up. About 300 kinds in gallon cans—the best size, because natives do not fare well if held long in cans.

Seed catalog 50c. Clyde Robin, P.O. Box 2091, Castro Valley, CA.

*Described in detail by Bill Gunther in Dec. 1969-Jan. 1970 issue.

Weeds in your Ice Plants?

Spray them out with Ice Plant Weeder

AT LAST

THE PILL

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The new discovery for better trees, roses, shrubs, ground covers and bedding plants—used by the millions by professional landscapers. Feeds up to 2 years.

Available at your local nursery or garden store.

"THE OCEANS
ARE DYING—
POLLUTION
IS GENERAL"
Cousteau

The Oceans and Lagoons Are Open Space, Too—

Virginia M. Innis

Sea Life Dying

"People don't realize that all pollution goes to the seas. The earth is less polluted. It is washed by rain which carries everything into the oceans where life has diminished by 40 percent in 20 years. Fish disappear. Flora too." These were the recent words of Jacques Yves Cousteau.

The ocean explorer and moviemaker made this appraisal in Monte Carlo. He further declared. "There was a mountain of talk about the sinking of Torrey Canyon, but the oil that polluted the sea at that time was only one percent of the normal annual pollution." The underwater explorer added "An excess of fishing is also Pollution."

Balance upset by Industry

"The Oceans are being scraped. Eggs and larvae are disappearing. In the past, the sea renewed itself. It was a complete cycle. But this balance was upset with the appearance of industrial civilization. Shrimps are being chased from their holes by electric shock. Lobsters are being sought in impossible places. Coral itself is disappearing, even in the Indian Ocean, which is the little traveled."

Conservation is the Hope of the Sea

Cousteau said that he has hope. "But very strict action must be taken. The United States and the Soviet Union are making considerable efforts in this direction. The European nations are starting to act. I hope that this downward trend can be stopped, and the rest saved. Some scientists are sure that it is too late. I don't think so."

San Diego County Lagoons are Alive

Conservationists in San Diego County are presently fighting to save the coastal lagoons. Ronald Hein, biologist for the state Department of Fish and Game said, "The county wetlands are alive, above and below the water with one of the most productive systems of plant and animal life in the world.

The Long-billed egrets and heron feed on the fish and bottom life as floating birds alight to rest and feed."

Lagoons are the Ocean's Nursery

"If a marsh opens to an estuary, it becomes part of a larger system that supports beds of shellfish, a spawning ground and nursery for ocean fish and a source of supply for their food. Even when the marsh feeds to the less active waters of a lagoon, it is still valuable to migratory birds along the Pacific flyway and shore birds.

Below the surface waters are rich nutrients that are most critical for these migratory birds. They provide us with an area where we can study ecology and watch the adaptations of some species and extinction of other." Hein said "The Wetlands also produce plankton and marine animals that provide food supplies for higher animals."

Lagoons Are Open Space

San Diego County May Acquire

Many lagoons and estuaries lying between La Jolla and Oceanside are in great danger, according to John S. Bradshaw, professor of biology at the University of San Diego. "These potentially productive and esthetically pleasing meeting places of sea and fresh water, appear to be doomed to extinction by the bulldozer, the dredge, and various forms of man-made pollution."

Need of Protection Cited

Bradshaw recommends that a Southern California Estuarine Development Commission be established to set guidelines based on thorough studies to provide the entire Southland with an orderly approach to rectifying the problem of the wetland. Most conservationists believe that some form of control is needed for these areas. Toward this end, the state assembly approved a bill by Assemblyman Pete Wilson (R) San Diego, to place future development of the coastline under state and local control. The bill, was killed in the 1970 session, without a hearing in the senate.

All other bills in this area have been killed also. Such bills have had the support of the California Advisory Commission on Marine and Coastal Resources and Lt. Governor Ed Reinecke.

Local Leadership Could Save The Lagoons

Pete Wilson has said that he will introduce the bill again in 1971 and that the bill would provide for the protection and planning of coastal develop-

ment. Until such time Wilson recommends local action before the areas are destroyed by development.

Lagoons Are Owned By Private Enterprise

The lagoons are owned by developers who have been paying taxes and who wish to develop the lagoons. The areas would be developed in the San Marcos manner. However, the San Diego County Board of Supervisors have taken action to halt the development. County Administrator Fred Morley has attempted to negotiate with the owners of San Elijo Lagoon. The owners are currently asking $3.4 million for the area. County Assessor E. C. Williams' records show the property is appraised at $1,525,720 for taxes.

Lagoon Will Be Offered on Open Space Proposition

The San Diego County Board of Supervisors indicate that the lagoon will be purchased if the open space proposition is passed in the coming November election. On September 22, the San Diego County Board of Supervisors declined to issue a hunting permit to a gun club which had received the duck hunting permit in the years past.

Conservationists ask if governments may secure lands for freeways and telephone poles and power lines, can we not afford to save the lagoons which are indeed in need of becoming a part of the public domain. They are more than just land. They are a part of the ecology of the oceans.

Conservationists further believe that some form of control of the wetlands and lagoons is necessary. Those who believe that San Diego County has the most valuable and beautiful coastline in California do not wish to see this beauty diminished. And they ask . . . Do the citizens care enough to buy the lands . . .

THE BEAUTY AND GENIUS OF A WORK OF ART MAY BE RECONCEIVED THOUGH ITS FIRST MATERIAL EXPRESSION BE DESTROYED.

A VANISHED HARMONY MAY YET AGAIN INSPIRE THE COMPOSER'

BUT WHEN THE LAST INDIVIDUAL OF A RACE OF LIVING THINGS BREATHES NO MORE

ANOTHER HEAVEN AND ANOTHER EARTH MUST PASS BEFORE SUCH A ONE CAN BE AGAIN.

BEEBE

Grow Your Own EARTHWORMS

John E. Miller

AN EARTHWORM IS OFTEN DEFINED as "One of God's handy workers." Every gardener knows that a good garden must have worms. If you don't have any in your garden, grow some.

A worm is a true hermaphrodite, having both male and female characteristics. One can breed with any other worm but not within itself. So, the smallest start can be two worms. To breed they join together at a spot on their bodies where there is a slight swelling (about one-third of their length) and remain together for some time if undisturbed. When they pull apart one egg capsule is deposited. In twenty-one days one to twenty small worms will hatch from this egg capsule. The worms are white and can be easily distinguished from maggots as the worms are about the size of fine gold wire and round. In 90 days each of these worms will start to breed. A worm will breed every week. In fact, at the end of 90 days the two worms you started with should have produced about 1,000 offspring! With proper care, they are outstanding reproducers.

A breeding unit can be of any size and shape. (A three pound coffee can can hold 100 for several months.) The simplest way to start raising worms is in a compost pile or box, pit or bin.* There are a few requirements which must be met if one is to grow the common Red Worm, also known as the red-gold hybrid, Egyptian, Calif. red-gold hybrid, etc.

1. Moisture — sprinkle thoroughly every three days.
2. Food—anything that has ever lived and died.
3. Temperature—65-75° is best.
4. Shade — deep shade is best but worms can be raised without any shade.

The best soil mix for worm breeding is a mixture of:

- ¼ sand
- ¼ rabbit manure (horse, cow, chicken, turkey, etc.)
- ¼ peat moss
- ¼ loamy soil

This should be mixed well and sprinkled thoroughly. Every three days the mixture should be turned and sprinkled. At the end of nine days if most of the heat is gone (feel with your hand), it can be used. A small amount of lime or Milorganite can be added to help keep the mixture from becoming too sour.

There are many variations to this basic mix. Worms can be raised very well in this mix and all household garbage (after being ground in a home food blender) can be added to larger units. (Carrot trimmings, potato peels, lettuce, cabbage, etc. excellent.) Let earthworms be your garbage man.

If one is raising worms in a compost heap or pile, the worms will be added to the soil with the compost. If one grows the worms in a breeding bed it is best to impregnate garden soil by digging out a few inches, spreading a layer of damp spaghnum peat moss, adding the worms and lightly covering with the soil. They can be placed on the surface of damp soil in the evening, too.

To protect the worms in your garden avoid chemical fertilizers as they do kill the worms. Use only natural ones or the sludge products.

Not only will one have a better garden with worms, but think how delighted the family fisherman will be. And, many have turned this hobby into a very profitable business.

John Miller grows worms at his home which he calls "Wormy Acres."

*Many books are available from the library. Thomas J. Barrett "Harnessing the Earthworm" is excellent. Call Mr. Miller for advise, too. 283-9906.

PHOTO FROM FLORAL ASSOCIATION FILES

THE ABOVE PICTURE appeared in a 1964 *California Garden* warning of the danger of fire. Many have suffered fire damage in California in the past as well as in our burn of Sept.-Oct. 1970. Until 1958 little research was done on plantings which would be slow burning or somewhat resistant to fire. Since 1958 the Los Angeles State and County Arboretum has been conducting studies on plants which could be used for homes, along road shoulders, for fire breaks and along highways in the mountain areas as well as the lower chaparral areas. They have been searching for plants which would be effective controls against the start or spread of wildfire. Seeds or plant cuttings which have been reported to be slow burning or incapable of supporting a fire have been obtained from all over the world. In their studies they have tried to determine if the plants are fairly immuned to insect and disease damage, if they can compete with native plants, if they can grow under drought conditions, if they can re-seed themselves and if they can stump sprout after a fire. The results of this ten-year study are now available in a booklet "Fire Retardant Plants" from the Arboretum, Arcadia, California.

If you desire to start planting immediately Coulter Pines *(Pinus coulteri)*, Arizona Cypress *(Cupressus arizonica)* and Black Locust trees *(Robinia pseudoacacia)* are recommended. A saltbush *(Atriplex canescens)*, a forage plant, is a good ground cover for the countryside, and firemen have reported that large banks of ice plant prevented fire from spreading to many homes. (See the June-July issue of *California Garden* for instructions for planting ice plant.)

George James, a nurseryman in the San Diego area since 1913, will write an article for our January-February 1971 issue on fire-retardant plants for our area.

In the late 1800's because of public concern over uncontrolled wildfires, Forest reserves were set aside in San Diego County. In 1905 Cleveland National Forest was established. In the past weeks over 200,000 acres of land have been burned in the Cleveland National Forest. Plans for a reforestation program in which organizations and clubs can participate have been announced by Stanley Stevenson, forest supervisor. For a $68 contribution from your group, the Forest Service will plant about an acre of Cleveland National Forest in pine tree seedlings 12 inches high. Buy a part of our future back country beauty!

Wildfire Control by Burning

OUR AREA BECAUSE of its dense cover of highly flamable vegetation and our dry climate is probably one of the most susceptible areas in the world to wildfire. The modern skilled firefighter has been able to supress the small brush fires until the whole area is covered with over-age brush and dead limbs, a tinderbox ready to burst into uncontrolled fires. Of San Diego County's 2,725,000 acres about 1,650,000 acres are brush (chaparral) covered. (Approximately one-half of the brush-covered area is under government control.)

"Help Prevent Forest Fires" is a well-known slogan, but many ecologists and conservationists feel that fire can be used to inhibit or prevent wildfires. Experts believe that the most effective means of preventing wildfires is to remove the brush in areas of high fire hazard and convert the area to grasslands with specimen trees and brush. The reasons which they give are:

Heavy brush uses more water than grass. Ground water levels and run-off are improved when brush has been thinned or cleared and grass planted. Tests have shown that soils in areas of grassland retain more moisture than soils in brush areas.

Tests have shown that grass is a better ground cover for preventing erosion than brush.

Experience has shown that after burns if the area is immediately reseeded with grass (with favorable conditions of soil and water), the area will be protected from water and wind erosion and be able to provide feed for stock and wildlife. If the brush was heavy, there is usually enough soil to support grass and the ash is a good medium for seed planting.

The least expensive grass cover is annual rye which will last about two years. The mixes containing annuals, perennials and legumes are more expensive but are superior and will provide a ground cover for seven months of the year.

Most controlled burning is done in the winter when a grassy ground cover will aid in containing and controlling the fire. If you are interested in this type of wildfire control on your property, contact the San Diego County Department of Agriculture or the San Diego County Fire Warden at the California Division of Forestry. BJ

Fire Damage . . .

EXPERTS AGREE THAT FIRE or hot wind damage to plants is somewhat like frost damage. One really can't tell for some time the extent of the damage. George James advises that plants be left alone until new growth appears, then trim off the "cooked" part. He also advises that one should take special care of any tree which has defoliated. He warns that the trunk is now subject to sunburn (which could kill the tree). He suggests that one paint the tree with whitewash or a tree paint in the defoliated area. The trees will not need much water in this condition, so cut down and don't fertilize.

If your area was burned, he advises that the soil has probably not been damaged—but the digging-in of some humus never hurt our San Diego soil. For ground covers or small plants, work the soil to a shovel depth. Make individual holes for large shrubs or trees, and prepare in the usual manner. He suggests one of the new pill fertilizers, too.

Kathryn Hunter of Rosecroft Gardens says that the lath house plants need washing. She found that the usual overhead spray was not effective on the soot and ash. She had to wash the plants with a direct spray from the hose and had to dip the blossoms in water to clean them. (Those tuberous begonias are hardier than they look.) None of her plants were damaged, even the Fuchsias during the low humidity days, but they applied a spray (hose turned up so water fell like rain) every 20-30 minutes from 9 a.m. to 5 p.m. for a week. All of the walls, walks, laths, etc. were kept wet, too, to help raise the humidity around the plants.

WATER

It is difficult to tell how much to water, especially in heat. I've found the answer with a soil moisture meter. One puts the 8-inch probe into the soil and the meter on top indicates the need for water. Often I thought my plants needed water, but found they needed only a refreshing evening rinse. Several pots, I discovered, needed water more often than I thought. True, you can figure out your watering cycle and time by experimentation. It takes ¾-inch of rain to wet sandy soil to one foot and 2½-inches for clay soil. Turn on the sprinkler, place some cans around, and see how long it takes to "sprinkle" one inch. Onions and lettuce have roots above the one-inch level; beans, grasses, pepper corn, strawberries, zinias, petunias are above two inches; Artichokes, cucumbers and melons are above five inches; fruit trees, citrus, olives and figs are above six inches; and tomatoes and grapes go to 10 inches.

Observations by the Univ. of California indicate that if plants are properly watered the intervals between watering are approximately five days for sand, eight days loam, 11 days clay for shallow rooted plants. Medium rooted plants require intervals of eight days for sandy, 12 for loam and 17 for clay. Deep rooted plants can have 17 day intervals for sand, 25 for loam, and over 30 for clay. Frankly, I've found my Agtronics Moisture Meter the answer. For information write: Agtronics, P.O. Box 1248, Barstow, Calif.

• Trees

1960 has been a hard year for trees in San Diego. Progress has mowed them down.

But before we wax sentimental on the subject, we might do better to consider the case for trees on practical grounds: the effect of trees on tourists (and their dollars); on climate (is San Diego really getting hotter, or is it the massing of humanity, concrete and asphalt that makes it seem that way?); on the long-range condition of soil; on the temper and productivity of the citizenry. Perhaps on these grounds we can make trees fashionable in 1961, and give the word "growth" a double meaning.

Trees grow rapidly in San Diego, but not until they are planted. We hope to stimulate you, sentimental or not, to "think trees" to the point of action. Put trees on your personal agenda, and on that of your garden club, your women's club, your service organization. Think trees, and plant them.

Here's to a shady '61.

(Reprint from the Winter 1960 California Garden)

1970 has been a hard year for trees, too. Hundreds have been taken down for Park parking, thousands have gone to widen roads or for new roads, and hundreds of thousands have burned.

Think trees, and plant them.

Here's to a shady '71.

Best by Betty Mackintosh

California Garden proudly prints some of Betty's favorite photos taken during the five years she was our photographer.

Middle Peak, Cuyamaca, looking toward San Diego.

Field of Brown-eyed Susans.

Smoke Trees in the Fish Creek Area of Anza-Borrego Desert State Park. Elephant Butte is in the background.

Not a rose, a rose shaped Begonia.

Mackintosh Apple in the Spring.

Dandelions in the Fall.

Ikebana

MUKASHI, MUKASHI — LONG, LONG AGO flower arrangements in Japan had to follow seasonal rules. This is not emphasized today, but is still observed by traditional schools and in conventional homes. The general rules are that no plant materials should be combined unless they are growing in nature together (autumn leaves with hot house daffodils are out), and plant materials which grow in different locations should not be combined (no waterlillies with cactus).

The season is shown, also, by the level of water in the container. In winter the water level should be low. (In Japan this is the dry season and water is often ice.) In spring the level is higher. Summer arrangements should show a lot of water to make the viewer think of cool ponds. (It rains a lot in summer in Japan, too.) The level should be down a bit in the fall.

In outline, a winter arrangement should be sparse—a barren branch with lichen or moss would be an ideal main stem. Spring arrangements with the abundance of new growth should be full and colorful. Because of the heat, plants suffer in summer. A cool natural scenery arrangement with pine and small flowers or one of waterlillies and reeds would be lovely. Arrangements should not be as full as spring ones. Fall brings mums and colored leaves in arrangements which are neither sparse nor full. No matter what the season, nature is used as the guide.

Wilted Rose Restoration

Virginia M. Innis

HE HANDED ME A BEAUTIFUL TROPICANA ROSE, but after he had cut it he had stopped at the drug store and at the gasoline station. My rose was beautiful but wilted.

The rose was fresh and had been cut early in the morning. The best time to cut a rose is between sunset and sunrise. The flower contains more sugar and is more turgid at this time.

The rose could be restored. The head or bloom of the rose needed to be wrapped in tissue paper or a paper napkin to protect it from the steam that would rise as I held the rose in a container and poured boiling water for two or three minutes over the end of the stem. (When in a hurry, I hold a cupped hand around the head of a rose.) After the boiling water treatment, I plunged the rose into cold, deep water and allowed it to stay for at least an hour before arranging it.

After the treatment, the rose which had been given me by my father-in-law revived and lasted for several days.

Most of the time roses will respond to the boiling water treatment. Roses that are old and spent will not respond; only fresh, strong roses may be revived from wilt.

Virginia Innis is a former Psychology and Journalism teacher who find her own therapy in arranging flowers and gardening. As the President of The Floral Association she is busy with things "plant" in Civic and Community affairs.

Decorating the Church or Chapel

from notes in Alice Rainford's Notebook

CHURCH DECORATING should be approached with respect and reverence for the traditions of the building. The desire should be to enhance, not hide, the symbols of religious devotion. Floral material should be suited to the style of the church. Only the plainest structure can be decorated with a quantity of flowers and a minimum of thought and labor.

Those in charge of regular weekly decorations should work with a committee or pastor to insure the best possible taste in the selection of material.

If the church woodwork is dark use only white or light flowers. Yellow, pale salmon, coral or pink are effective, but don't use them all together.

In a Catholic or Episcopal church, where the cross is a feature, no flowers on the altar should reach higher than the arms of the cross, without special permission.

Alice Rainford, now retired, was a San Diego florist for many years. She has written for our magazine since it began.

If decorations must be confined or restricted, they should be confined to the rostrum.

In the spring, fruit blossoms, if available on long branches, will provide lovely decorations.

In the fall, large chrysanthemums are always more handsome if not crowded. They are no more expensive or difficult to arrange than smaller flowers which demand greater numbers and time to achieve results.

For a wedding, two well filled baskets or jardanieres placed in stands, and a few palms or ferns in graduated sizes will provide a nice setting. For simple but elegant decorations, it is better to concentrate on doing the chancel well, as this is the main view.

Avoid using too many candles at a wedding. The effect should be to lead up to the altar as the heart of the entire plan. If single candles are used, every other pew is usually close enough, in opposite pairs. Candelabra of two or more candles should not be that close. Be careful in placing candles, both for the safety of the wedding party and the guests.

Memories of Kate Sessions

Alice Rainford

In 1898 when I was 18, I came to San Diego determined to work for Kate Sessions. Our families were acquainted in Oakland, and I first remember meeting her when I was about eight, when my Aunt, her friend, took me to meet her. Perhaps I am the only one now living who shared some of these early experiences with her.

K. O. S. never wanted to stop her work long before taking a train. Her business often took her to Santa Barbara, Huntington Park or Los Angeles. Often I have called a cab; put her travel dress and shoes and hat in; and met her at a street car; helped her dress in the cab; put her on the train; and gone back to the store with her work clothes.

People who saw her only about her garden in long, heavy tweed dresses and big boots would not realize the high cost of such a dress made by a good dressmaker and of hand-made boots. They had to be strong. Her dresses had to have pockets deep and strong enough to hold pruning shears or a trowel and always a bunch of raffia and a ball of string in case she saw a plant that needed tidying up. Nor would they find it easy to believe that she was the beauty of her graduating class, always well dressed and from a "well-to-do" family. She could have married well, but that was not her ambition.

Her beaux and friends knew that she preferred a bag of grocery candy or stick candy to expensive chocolates.

Think of the contrasts; Katherine Olivia Sessions was feated by Kew Garden Associates in London and the famous French Horticulturists held a banquet in her honor. Yet a few months later, a dozen or so of us were invited to a corn-on-the-cob and watermelon party at her home. K. O. S. lined up the cobs along the table edge in front of each guest and measured one's eating with a tape line, awarding a prize. But there was culture, too, for some of the guests brought violins and all enjoyed a pleasant musical evening following the feasting on the fine corn her father had raised at the nursery.

Miss Sessions bought a two cylinder car, the kind you cranked in front, long before self-starters. Naturally, she got bumped and knocked down a time or two. She did not understand the brakes well. One day she was superintending some gardening being done at First and Laurel. Her car parked at the curb, ignition running, decided to move. It started circling that intersection. Fortunately, no one was near in a car. K. O. S. jumped on the running board yelling, "Whoa- Whoa!", while circling around with the car until a man jumped on and jerked the ignition key out. I never saw her drive again. She sold the car the next day. She had a car in later years, but had a driver. She enjoyed riding in a car and loved to take trips into the country.

These incidents and many more endeared her to all who knew her.

Harvest and Renewal

Josephine Gray

ROSEMARY FOR MEMORY • ROSES, LOVE • RUE, VISION
SAGE FOR HEALTH • VIOLETS, HUMILITY • LAVENDER, LUCK
THYME IS FOR COURAGE • IVY A SYMBOL FOR GOD
MINT FOR CHEERFULNESS • CAMOMILE FOR PATIENCE

IF AN HERB BOOK has been written by a purely Western gardener, it has not come to my notice. The books on herbs over which I endlessly pour are all by Eastern or British gardeners, and I find that we Westerners have problems and rewards which they do not have. We fight clay and granite soils and bone dry summers, but we do not have to plant our Rosemarys and Lemon Verbenas in tubs to be brought into shelter for the winter.

Rosemary is green and beautiful all year and gives us several glorious blossomings. It needs no drastic pruning at all.

Lemon Verbena must be pruned in the fall shortly after the last harvest. I always have a heart-scald after performing this rite, for it looks so naked and lorn that I think I have surely "done for it" this time. However, in late February or early March little green eyes begin opening all along the gray branches. I have just read in a British book that spring is the time to prune Lemon Verbena. Though my fall pruning has been successful because our springtime comes early, I shall experiment with one shrub this year.

October is the last call for cutting Lemon Verbena to dry for sweet-bags and sachets to tuck into the box with a pretty Christmas nightgown. There isn't a more pleasant task on earth than to sit in the shade and strip the fragrant leaves; this is when the mind reviews summer and makes plans for the coming year.

Now, too, you must gently prune the rose geranium for drying. I dry them and the herbs on old window screens in the shade, so that the air can get to them all around. They must be stirred every day, and if they are dried out-of-doors, must be taken in at night to avoid moisture. Some herbs are dry within a week, but the geranium leaves take much longer. Basil and thyme may be cut for the last vinegar making of the year. It is well to dry a little basil, too, for you will not have it in winter as you will other cooking herbs. I have read that one can bring a pot of it inside for the winter, but have never had success with it.

It is wise, in every plot to let one plant go to seed, particularly the ones which are hard to come by; Lemon Basil, the gold and silver Lemon Thymes. Of course the thymes can be propagated by layering, but it is fun to scatter some of the seed to see where it will show up after the rains begin. Not so with basil; it must be put in an air tight container in the refrigerator to wait for warm earth and hot days. Cut the brown heads of rue and when you have shaken the hard black little seeds from their cells, save the heads for dried arrangements or herb wreaths.

Southernwood is another perennial which goes completely dormant in the winter and can be pruned now, the branches stripped to dry as a moth deterrent. Here again you will feel that you have "done it in," and if you prune fiercely you may find that you have. This pleasant herb is one of the most attractive of the artemesias, with its delicate fern-like foliage and spicy fragrance. It is very easy to propagate from cuttings taken in spring and summer, and I have had it root in water in a little bouquet on a kitchen window sill. One of its several names is "Lad's Love" because it was used in an ointment to promote the growth of a beard. With rue, it was used in the tussie-mussie which judges carried to court to ward off jail fever, also it is said to be a defense against drowsiness. Little bunches were often carried to church to keep members of the congregation from falling asleep during the long sermons.

I am becoming more and more devoted to the idea that more seeds than we think, like to be sown in the fall. With the exception of basil, that hot weather devotée, and the thymes which want cool weather in which to germinate, I sow sage, borage, summer savory, burnet, marjoram and oregano in October and early November before the rains come. (At the same time that calendula, larkspur, poppies and columbine are sown.)

Twice a year at least, herbs appreciate bone meal scratched and watered into their beds. They also respond to occasional cultivating with one of those little arrow head hoes. The salts and minerals in our water pack and harden the soil, and gentle cultivation allows air and water to get to the roots. October is a busy month for California gardeners. Beds must be renovated with humus and bone meal to receive bulbs. (An article in a garden magazine tells me to add, also, a little potash to the bulb beds, maintaining that old bulbs on the downward path will be renewed and that their blossoms will be as big and beautiful as the first year bloom.) There may also be a harvest of herbs or at least a gentle pruning for them and the scented geraniums which you may want to dry with an eye toward Christmas. There are seeds to gather and to sow in the pleasant October mornings. What gardener can keep his mind from leaping ahead to spring as he scratches and digs and prunes and sows? As he stands up to stretch and lean on his hoe, hands fragrant with the scents of thyme and marjoram, he can think of a truth, that these are surely thanks-giving months.

Josephine Gray does her gardening at Rancho Santa Fe. She hates to "thin-out" so her garden is a delight. Her hobby is researching herbs and growing them.

PHOTO BY BETTY MACKINTOSH

Eucalyptus on the horizon on Otay Mesa.

EUCALYPTUS ARE NOT NATIVE to California. In 1836 Professor Thomas Nuttal of Harvard collected plants in California but found no Eucalyptus. An 1858-9 Catalog from the Golden Gate Nursery in San Francisco that offered the seeds of *E. angustifolia, E. resinifera* and *E. argentea* for $10 each seems to be the first record. The owner, Mr. W. C. Walker, imported the seeds in 1856 from Australia.

Planted first as novelties, their growth soon encouraged ranchers to use them for groves in difficult areas. One of the largest plantings was on the ranch of E. Copper of Santa Barbara. It is recorded that he had 150,000 trees of 24 varieties before the turn of the century.

The greatest planting boom was between 1907-11. Max Watson started a nursery in San Diego County at this time and probably many of our local trees are from his nursery. Incidentally, the Rancho Santa Fe trees were planted by the railroad to furnish ties. *E. globulus* and *E. camaldelenis* were planted, but both were useless, as one was too soft and one was too hard.

Many of our California Eucalyptus are dying of old age. We will miss them from our countryside when they go. Wouldn't this be a wonderful project for Jr. Garden clubs or school groups to reforest our area with this lovely tree which does so well in our area with almost no care after it has been established? BJ **Historical notes from Dec. 1962 California Garden article by Helen D. Carswell.**

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Calendar of Care

George James

Soil Penetrants

SOIL PENETRANTS HAVE BEEN AVAILABLE for several years, but are still unknown to many gardeners. They are made by several firms and sold under various trade names, but they all attempt to do the same thing—improve the soil structure so both water and air can enter the soil easier and penetrate deeper.

A soil penetrant can be described as being a non-ironic, non-corrosive, neutral mixture of high concentration, which breaks the molecular structure of water so that the water can flow into and between the smallest earth particles. This action breaks up the soil to allow better air, water and root penetration. This can release plant foods which are trapped in the soil.

Soil penetrants can be used in the garden any place there is a water penetration problem. Some examples are:

(1) Some garden soils are adobe or decomposed granite or have large percentages of these materials in their makeup. When such soils become dry, they form a crust which is difficult for water to penetrate. A soil penetrant in such a situation will greatly increase the penetration of water through the crust.

(2) Many gardens have sloping areas which are planted with lawn or ground covers. Deep watering is difficult because the water runs off before it can soak into the soil. A soil penetrant will cause more of the water to soak into the soil with less run off.

(3) Soils in our part of the country aften need large quantities of organic matter incorporated into them to create good soil. When organic materials are used as mulches, they often become crusted and it is difficult for water to go through them. When organic materials are mixed into the soil they are difficult to wet, and until they are wet and start decomposing, they do little to improve the soil. A soil penetrant is helpful in both cases because it helps the water to enter the particles of organic material and properly wet them. Organic material which is to be mixed into the soil can be soaked in water to which some soil penetrant has been added. Peat moss is one of the most difficult of the organic materials to wet, and small amounts which are to be used in potting mixtures are easily treated before mixing.

(4) Large shrubs and trees often develop many roots close to the surface of the soil, and if one cultivates around them to break up a crust which may have formed, many roots would be damaged. Plants in containers can develop similar conditions. In both cases, the use of a soil penetrant eliminates the need to break the crust.

(5) Older lawns, especially those with a great deal of Bermuda Grass, develop a thatch of dead growth which resists the passage of water and fertilizers. A soil penetrant will enable both water and fertilizers to move through the thatch, resulting in a more attractive lawn.

(6) A soil penetrant will aid the penetration of water on a newly seeded lawn. It will reduce the possibility of the water puddling and flowing to a lower point, washing some of the seed with it.

(7) Planting holes which do not have good drainage, can have their drainage improved if some soil penetrant is placed in the bottom of the hole before the plant is set. Additional applications can be made from the surface of the soil at intervals afterwards. This treatment will aid in opening the soil pores in the bottom of the hole so that more efficient drainage is developed.

Soil penetrants will not damage germinating seed nor the foliage of plants.

When a soil penetrant is used, one will expect the treated plants to develop deeper roots resulting in stronger plants that have a more attractive foliage color. One can expect to save water, because water will penetrate quicker and less will be lost by run off. One can expect the soil to be better aerated, more air at the roots of the plants, which is essential for healthy growth. One can expect commercial fertilizers to be more effective because the roots of the plants will be healthier and better able to utilize the fertilizer.

Soil penetrants are usually purchased as a liquid material, but some are available as a dry powder; one is as effective as the other. Liquid penetrants have label directions which call for a specified amount of the concentrate to be applied to a given area of soil. The recommended amount is sufficient to create satisfactory conditions in soils which are not to difficult. Where difficult soil conditions exist, a second or even a third application over a relatively short period of time will be needed to create a desirable soil condition.

A soil penetrant concentrate can be diluted with water to provide a volume sufficient for easy coverage of the area to be treated. Small areas can be treated with the concentrate diluted in a watering can, and large areas are quickly and easily treated with the concentrate applied through a hose end sprayer. After the application, the treated area must be watered to carry the penetrant deeply into the soil. Careful watering is necessary so that the penetrant is not carried away by run off water. Slopes and badly crusted areas may need to be watered carefully several times to get the penetrant into the soil.

Any new product or device requires that the user become familiar with it before satisfactory results are obtained, and often results are anticipated which are beyond achievement. Gardeners who have problems similar to those described can improve the soil situation in their garden by the use of a soil penetrant. Perhaps the soil will not accept water perfectly after the use of the penetrant, but it will most certainly accept the water better than it did and there will be an improvement in growth if all directions on the label of the container are followed closely.

George James, Garden Care feature writer, is an experienced horticulturalist and gardening teacher. He studied under his father, a nurseryman, and at U.C. at Davis. He has lived in the San Diego area since 1913 and is well versed in our local gardening situation.

Succulents

SCHWANTESIA RUDEBUSCHII

Nibby Klinefelter

WHEN DR. SCHWANTES accepted the post of Director of the Prehistoric Museum at Kiel University, it was with the understanding that his collection of mesembryanthemums was to be transported by special train. And why not? Dr. Derenberg had willed his to Dr. Schwantes, and the combination of the collections was bulky as well as valuable. You've got to admire a man who moves his mesembryanthemums.

Martin Heinrich Gustave Schwantes was born in 1881 in Hanover, Germany, and published his short book with the long title, THE CULTIVATION OF THE MESEMBRYANTHEMACEAE in 1954. In the meantime he collected plants and degrees.

When Dr. Schwantes was a young man only 300 species were classified. Now, overpopulatedly, there are 2,400 listed; due in part to this man who was one of the busiest botanists around at a time when Africa was swarming with collectors glorying in the dazzling sheen and electric colors of the mesembs. They named plants after themselves and each other, wrote books, experimented with growing conditions and argued endlessly. We have Derenbergia and Derenbergiella after Prof. Derenberg. Browananthianae and Browananthus after N. E. Brown of England, and Dinteranthus from Prof. Dinter. And, of course, the genus *Schwantesia,* numbering ten species.

The seed capsules of mesembryanthemums are little works of art. The multiplicity of mesembryanthemums is almost overpowering, over 120 genera. Some authorities divide them into three groups: (1) straggley "ice plant," (2) dense little clumps, and (3) living stones, progressively more difficult to grow well.

The species pictured, *rudebuschii,* was named after a farmer in Great Namaqualant, SW Africa; presumably a good host with an eye for exotics. This little succulent is under four inches and forms small clumps. It looks like a rather blurred and untidy *Faucaria* as the leaves twist and turn haphazardly until the keel is sometimes uppermost, nor are the teeth as well defined. The yellow flowers with their fringe of modified stamens are so short-stemmed that they are often squashed between the leaves. A child of the sun—they bloom from April to October and can take a fair amount of moisture during that period. In winter they prefer a temperature above 60°, liking it dry and bright, which does not describe San Diego exactly. But, we all have to make adjustments! Give them a well-drained soil, but not very rich. A too rich soil can not only be the death of them, but can destroy their character.

Nibby Klinefelter has been growing succulents as a hobby for twelve years. She says they are fascinating plants of a tremendous number of varieties and easy to care for in her spare time.

Orchids

Duane Close

Setting on the coffee table in our living room this month (September) is a very beautiful ornamental, oriental-looking plant, *Paphiopedilum maudiae* "Magnificum." This medium-sized plant has two flowers, one fully open and the other still in the bud stage, hanging like a pendulous lamp on the end of its arching stem. This elegant flower with its apple-green pouch, green-veined white dorsal and long, sweeping hirsute petals makes an almost unbelievably beautiful addition to anyone's home. These flowers will last on a healthy plant for at least a month in the house if kept moist. Orchids can be enjoyed in your home as well as in the lath, shade or greenhouse as long as you are aware of the requirements needed to keep them in a healthy condition. This means you must be alert to the appearance of your plants.

This is a good time of year to take stock of what your plants have done through the last growing season. Are they improving in their growth each year, or are they just holding their own? It is good to see the growth on the plants like stair steps; each succeeding growth a little stronger, huskier, and larger than the last. Sometimes it is a very small item, such as a slight change in the night or day temperatures that will make a significant difference in the response of your plants.

As we move into the fall months of October and November, the nights will become increasingly longer and cooler. Yet, these months may offer some of the brightest, clearest weather of the year, so benefit from this light. Gradually remove some of the shade from the north and east sides of the glass house. With

Duane "Bud" Close is the chairman of the Science Department at Grossmont High School. He has been growing orchids in San Diego for 23 years.

the shorter days your plants should be able to stand some increase in light. The light requirement for October and November is very similar to that of February and March; yet your plants have been toughened by the long summer days, so they should be able to stand this increased light now. If we are fortunate enough to have some early rains, they may have removed enough shade from the south and west sides so that further removal would be detrimental. When you live south of the 35th parallel or latitude, a partial amount of shade is always needed on the south and west sides of the greenhouse. Remember that plants such as Paphiopedilum (Cyps), Miltonias, etc. still need more shade than Vandas, Cats, etc.

October and November continue to present Cattleya growers with some of the finest hybred flowers, and even some very nice late-blooming summer yellows. What should we do with these plants after they have finished flowering? A good practice is to segregate those that need potting from those that can wait for another year. Some of the plants may not have rooted from the flowering lead as yet, and when you see the new roots emerging, this is an excellent time to pot if needed. The rest should wait until you see renewed activity in January or February. A slight rest by reducing the amount of water on these inactive plants will not hurt them, particularly the yellows which benefit from a reduction of water when they are inactive.

Cymbidiums should be showing their flowering spikes at the base of the new growth. Growers who live in warm climates should make every effort to keep their plants as cool as possible as spikes can be encouraged if the plants can be cooled. Damping with cool water in the evening will help, as it reduces the internal temperatures. This wetting will also discourage the two-spotted night or "red spider" which is an ever-present problem with this genus. Do not sacrifice light to get coolness, however, as light encourages spiking while too much shade discourages.

Paphiopedilums (Cyps) will be showing a few flower buds now. Keep the water off the flowers as much as possible, but do not neglect the moisture as they must have moist roots at all times. Continue to fertilize your plants on a regular schedule, and be sure to keep insects, snails and slugs in check.

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Build a Water Garden

Barbara Jones

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A WATER GARDEN can be started in a plastic pool, a wash tub, a wooden tub, a plastic bucket or in an elaborate pool. The important thing is that it hold water, and if you have a desire for plants, that it be deep enough for the plants.

An old bathtub makes a marvelous pool. Just dig a hole slightly larger than the tub and about 5 inches deeper. Fill the bottom of the hole with about 5 inches of gravel. Invite a couple of friends over, and lower the tub into the hole (Step into it and wobble it back and forth to firm-up the gravel.) Fill in around the tub, put in the plug and, presto, ready to go. One of the greatest advantages of this type of pool is at "spring cleaning" time. Just scoop out the fish, gently lift out the plant containers and pull the plug. All the water will drain out and after a few swishes around the sides and a hose rinse, you are ready for another year.

I have recently seen bathtubs used very effectively in two gardens. One person had redone the plumbing in an older home. The double laundry tubs were placed in a prepared hole (by the accommodating plumber—he had to put it someplace) on an upper level. A dry waterfall was constructed which started at the laundry tub edge and ended at the lip of a "dug-in" bathtub on the lower level. The owner-designer was still landscaping, but a slow trickle of water could be introduced into the upper tub which would overflow down the waterfall into the lower tub. (Plans were for an electric pumping system to be installed later to recirculate the water.) The trees and other plantings around this water garden completely disguised its "junky" beginnings.

At another home a lovely lath-covered tropical garden connected to the family room. We were entertained in this lush garden room and the sound of water from a tiny waterfall dropping into a waterlily pond was very cooling and refreshing. When I went to look closer at the flowers, I found that the pond was a bathtub which had been set at ground level with a wall of stones built up to the edge. Rock-garden type plants were growing among the rocks. This made a pool which their small children could enjoy without falling into it!

Not everyone has an old bathtub, so I went to Hazards to get some information on pools which could be constructed easily at a minimum cost. Bob Dean was very helpful and gave me some great ideas. (See back cover.)

If one has a very limited area or wishes to make a series of small ponds down a hillside, the precast instant planters could be used. If it was to be a very temporary installation, the planters could be lined with plastic. But, if one really wanted to be sure to have a water-tight pool that would last, the bottom should have a piece of chicken wire placed in it (about 2 inches up the sides) and about three inches of a ready-mix type mortar. A thin layer of this mortar should be applied up the side. (The mortar will adhere better if the pre-cast cement planters are wet down before the mortar is applied.) Bob Dean said that the types called "plastic cement" would probably be more water-tight. Some people say that the cement cures better if covered with burlap and kept wet for six days; others recommend that the pool be filled with water as soon as the cement has set (after several hours) and cured for six days with water in it. After drying a sealer can be used or a portland cement base paint or one of the swimming pool paints to help seal the surface.

To make a pool of your own design, dig out a hole, line it with heavy plastic (at least 8 mil.). Next put chicken wire in the hole and try to get it to conform to the contour. Next prepare the cement mixture either using a pre-mix or a from-scratch mix and trowel it in at least 3 inches deep. Cure as above. A from-scratch mix which should be satisfactory is: 1 part portland cement, 2½ parts fiine aggregate, 3½ parts coarse aggregate and water not to exceed 6 gallons per sack of portland cement. Another mix is 1 part plastic cement to 5 parts of sand.

If you are mixing by hand, mix the dry material, make a pile, make a dent in the middle and add water. Mix with a shovel or hoe until you get a stiff but workable material. (If you are using wooden forms for your pool, be sure to wet them before applying the cement.)

The possibilities of do-it-yourself pools are unlimited. Rocks can be imbedded or the pool can be tiled. A larger, more formal pool can be constructed of cement blocks. (I always go to a plumber shop and get a bathtub drain "set-up." I make a hole under the middle of my pool about 12 inches deep which I fill with gravel before I begin—and then set in the drain as I form the cement. When the pool is finished it is easier to clean—just pull the plug.)

Remember—you must have an area of the pool that is at least 16 inches deep for water lilies.

To prepare your pool for fish and plants, wash it with fresh water and fill. Let stand for at least three days. Drain the pool and fill with a vinegar water solution, at least a pint for every 50 gallons of water. (A gallon occupies 7.5 cubic feet.) Let this stand for two days and drain. Fill and you're ready to go on a new gardening adventure!

———

Editor's Note: See April-May 1970 CALIFORNIA GARDEN for Water Gardening Article giving details for care of many plants and fish.

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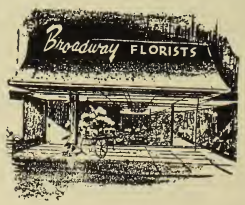

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BOOK IDEAS FOR HOLIDAY GIVING

Traditional America Crafts. Betsey B. Creekmore. Hearthside Press. 1968. 183 pages, many illustrations. $10.00.

This is not a real "do it yourself" book but a fascinating history of Cottage Art in the past plus detailed directions for the things we can do today. We may buy our quilts by the yard, but there is much left of the old—there being nothing new under the sun. Did you know *baroque* (meaning an irregularly shaped pearl) describes the 17th Century's fetish for the asymmetrical? Did you know that Calvin Coolidge pieced a quilt at the age of ten? They did not have T.V. to occupy a small boy during the long winter evenings in Vermont. The Elizabethans really used nosegays and tussie mussies because their sanitation arrangements did not compare with their gardens. In winter there was the pomander ball and no real lady would be caught without one or 'tother. There is china painting and glass painting, stitchery and decoupage, toys and trays, and candle making—past and present. Flowers are thoroughly covered from seeds to settings. Arrangements—fresh, dried, waxed and wild. Buxum Bouquet: isn't that a delicious name for a mass arrangement?

This is the story of women striving to bring something of beauty into a cabin in the wilderness or an apartment in a city canyon.

Reviewed by Beverly Kulot

Anyone in Southern California knows that in just a few hundred feet one can find a change in the soil and by traveling even a block one can experience a climatic change. So—our authors are very special people who have actually lived in, planted in and have had experience in our delightful but often frustrating garden area.

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The Poetry of Leaves. Norman Sparnon. John Weatherhill, 1970. 190 pages, 107 arrangements. Many illustrations by author and others. $8.95.

ARRANGEMENTS IN THIS VOLUME represent two schools of ikebana, the classical Ikenobo and the modern Sogetsu.

Mr. Sparnon has used sixty varieties of leaves over and over in many diverse patterns. He writes that he could have devoted the entire book to aspidistra leaves. He is especially fond of that leaf, and his opinion is that every flower lover should own at least one of these lovely plants.

His purpose is to show that one can work with whatever material is available and with the exception of the traditional classical styles, not to duplicate or imitate.

This is the third volume in a series on creative ideas for Japanese Flower Arrangement. It is a beautiful and exciting book and makes me want to go right out into the garden and gather material and start to arrange.

Reviewed by Hazle Arnold

Flower Growing for Flower Arrangement. Arno and Irene Nehrling. Illustrated by Charlotte E. Bowden and Charles A. Mahoney. Hearthside Press. 1969. 220 pages plus index. $5.95.

This book is a revised edition of "Gardening, Forcing, Conditioning, and Drying for Flower Arrangement," first published in 1958. The husband and wife team, he with background of horticulture and she a teacher of floral arrangements, have combined their talents. From good design of a garden using easy care shrubs, trees, annuals and perennials, all selected for indoor use, to chapters on bulbs, herbs, and vegetables, there is much of interest, including a list of plants by color and season. While not specifically for southern California gardens, the book is a valuable addition to the library of all flower arrangers.

127 drawings and 34 new black and white photographs.

Reviewed by Sophie Fisher

Bamboo. Robert Austin and Koichiro Ueda. Photographs by Dana Levy. Walker/Weatherhill. 1970. 215 pages. $15.00.

". . . it is the most universally useful plant known to man. For over half the human race, life would be completely different without it."

This beautifully illustrated book showing bamboo in all of its facets from plant to art objects is artistic as well as being a presentation of botanic facts and historical usages and lore. Growing instructions, too.

One of the interesting statements was about the flowering of the bamboo. It flowers every 60 to 120 years and then most plants die. The madake bamboo which accounts for three-quarters of the bamboo which grows in Japan is flowering now. This last occurred before Japan was opened to the West, over 100 years ago. It will take 10 years before the groves will return to their present level.

This handsome, large book would make a wonderful gift for anyone interested in Oriental art and culture or in plants.

Reviewed by Barbara Jones

The Very-New Christmas Make-it Book. Barbara Baer. 121 pages. Illustrated. Hearthside Press. 1968. $3.95.

Wonderful ideas for decorations, gifts, cards, wraps and everything Christmas. Very well described and illustrated.

This book was written for those from 8 to 80, and nothing is so difficult that it can't be done by anyone with the desire to try.

True, one can buy almost anything, but if you make things yourself, they are a bit different, will fit your needs, and are fun. It's a way to have a real family Christmas, too.

A must for the Bazaar Chairman!

In fact, this is a short review because I want to hurry to get started on some of the interesting projects.

Reviewed by Barbara Jones

Rubies & Roses — Gems Portrayed in Flowers. Peggy Feasy. Charles E. Tuttle & Co. Many illustrations. $12.50.

This is an unusually beautiful book from the red cover with its single full blown rose to the interesting Bibliography at its close. Mrs. Feasy has brought into these pages a new and complete departure from the usual book one finds on flower arranging.

The student of gems, rocks and minerals will find historical data, and the flower arranger is presented new thoughts as one follows the delightful story of gems and their floral interpretation. Each full color cut is clear with minutest detail shown. One rarely finds this in books on flower arranging.

The author begins by saying, "Gem stones occupy a place unique in one's feelings; they exert a mysterious pull on human emotions." Most flower lovers feel this statement is true about flowers, so the combination of the two would naturally make up a perfect whole. Mrs. Feasy knows her plants and flowers and she never leaves one in doubt about the flower she has combined with a certain gem.

This book could be read and re-read. One becomes conscious of beauty in every form, color, texture and light around them as they gaze upon gems and flowers with new awareness and meaning; truly a new and challenging experience.

All will find a common language in the pages of this book. There is visual delight experienced in form and color, the finding of a new hobby with the added joy of creativity as one awakens to the beauty of God's handiwork all around. What more could one ask from a book?

Reviewed by Marion Winship

Rocky Mountain Trees. Richard J. Preston, Jr. Third revised edition, 1968. 285 pages, 129 full-page plates. Dover Publications, Inc. $2.75.

Another of Dover Publications' fine contributions: inexpensive, paperbound reprint of a profusely illustrated manual first brought out when printing and particularly engraving, were less costly, and every page could have a picture. The finely detailed drawings are both delight and challenge; one finds oneself asking, "Does it really look like that?" (It does.)

Rocky Mountain Trees first appeared in 1940. Age does not matter; the same trees grow there now as were growing 30 years ago. A few changes have been made: nomenclature has been brought up to date to accord with the International Code, and a few of the distribution maps have been modified somewhat to agree with later information. In addition, text and illustrations have been photographically enlarged, which makes the book not only easier to use but more attractive.

The author uses the phrase "Rocky Mountain Trees" in an elastic way. He defines the "Rocky Mountain Region" as "the area lying between the Great Plains and the Pacific Coast States." In actual usage, this last means Pacific State Mountains—the Cascade, Sierra, Peninsular line of North-South ranges—since the vegetation east of these mountains is Great Basin vegetation. Many trees found in this region are distributed over a vastly wider area than this, for example, Quaking Aspen, seen from Mexico to Alaska and eastward across Canada to Labrador. Many trees mentioned are found here in Southern California. The term "trees" includes such plants as Arizona's big Sahuaro Cactus, *Cereus giganteus;* the Southwestern Desert's Smokebush, *Dalea spinosa;* and Sagebrush, *Artemisia tridentata,* which occurs by the million throughout the West, but which only rarely, and then when growing in the most favorable of sites, can be called a tree. (Tree . . . well-defined stem, definitely formed crown, minimum height not less than eight feet, trunk diameter not less than two inches.) Preston includes a number of other usually shrubby, only occasionally treelike, plants which adds to the interest and usefulness of his book.

More than 125 species are treated. For each one there is a distribution map showing where you may expect to see the tree growing, and a full-page plate with twigs, buds, leaves, flowers and fruits all carefully drawn to scale, and, (comforting thought), measurements given in inches rather than centimeters. Text is concise, using only enough technical terms to make descriptions clear and accurate. These terms are explained in the glossary. A brief bibliography, a check list by states, an index of both common and scientific names, and a key to the genera complete the work, a worthwhile addition to the library of the tree watcher, the student, the traveler in the West. Wish I had one myself.

Reviewed by Helen Witham

The Clover Mite and I

Clara E. Ellis

OF ALL THE EXPERIENCES I have ever had, my encounter with the clover mite was one of the unevenest.

I had never heard of such a thing when the clover mites arrived at my canyon home. But, they had heard of me. I was the only one in the neighborhood they attacked; guess they liked my blondish freckled complexion.

It all started when I noticed considerable itching of my skin, especially my face and neck. I thought of everything: too much fruit, mosquitos, and even the seven-year itch. I can't stand this for seven years, I gloomed.

Shortly thereafter, in making my bed, I noticed small black dots on the mattress. When I saw one of them move, I panicked, and called a mattress man. He did not inquire why I wanted a clean mattress cleaned; he just lugged it away. Meanwhile, I brooded and itched.

I am not the best housekeeper in the world, but this . . . this was too much.

The super-cleaned mattress came back and I tried to relax between scratchings. To my horror, I found that the "things" liked nothing better than a super-clean playground. The incredible itching went on and so did the dots.

When I became one human itch, I placed a couple of dots in an envelope and called an exterminator. It was lucky I had a sample, for the man seemed puzzled. Apparently the dots had taken a day off and there was not one in sight. When I showed the man the exhibits, his face lit up.

"Clover mites," he said happily.

But he still seemed puzzled, saying, "They live and feed on outside vegetation." He seemed not to understand how they had broken in and entered.

"The crime wave," I said. "After all I go out sometimes and maybe they get a free ride on me."

The man's face lit up again. "Darned if they don't," he said, and fumbled with his lethal insect weapons.

"Do a good job," I said. "I'm almost bitten to death."

"They don't bite," he said.

"They don't!" I screamed and pointed to my wounded neck.

"Oh, that's their legs," he informed

me, "They're sharp and stick into the flesh."

The fiends were so tiny I could not see even one leg! Talk about concealed weapons.

The man sprayed outside and in. Apparently he did a good job for the mites either died violent deaths or left for other necks to conquer.

After my ordeal, I looked up a government bulletin. It confirmed that the creatures have spiny legs. You can say that again, I thought. And their legs "are made for walking." On me. Why me?

The bulletin also says that their fancy name is *Briopia praetiosa* Kock, whatever that means. They are about 3/100 inches in length. How could anything so small be so mean? The article said they were almond brown and much bigger than the two-spotted mite, common red spider.

I thought I could exploit my expert knowledge of the clover mite by mentioning them in social conversations. Whenever I tried to instruct a listener, I received a blank stare, and my hearer changes the subject to something more interesting, like sex.

A little knowledge may not be dangerous, but it can be useless. Unless the BPK return, that is!

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Pres.: Mrs. John Ohlson 444-2753
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1852 31st St., S.D. 92102

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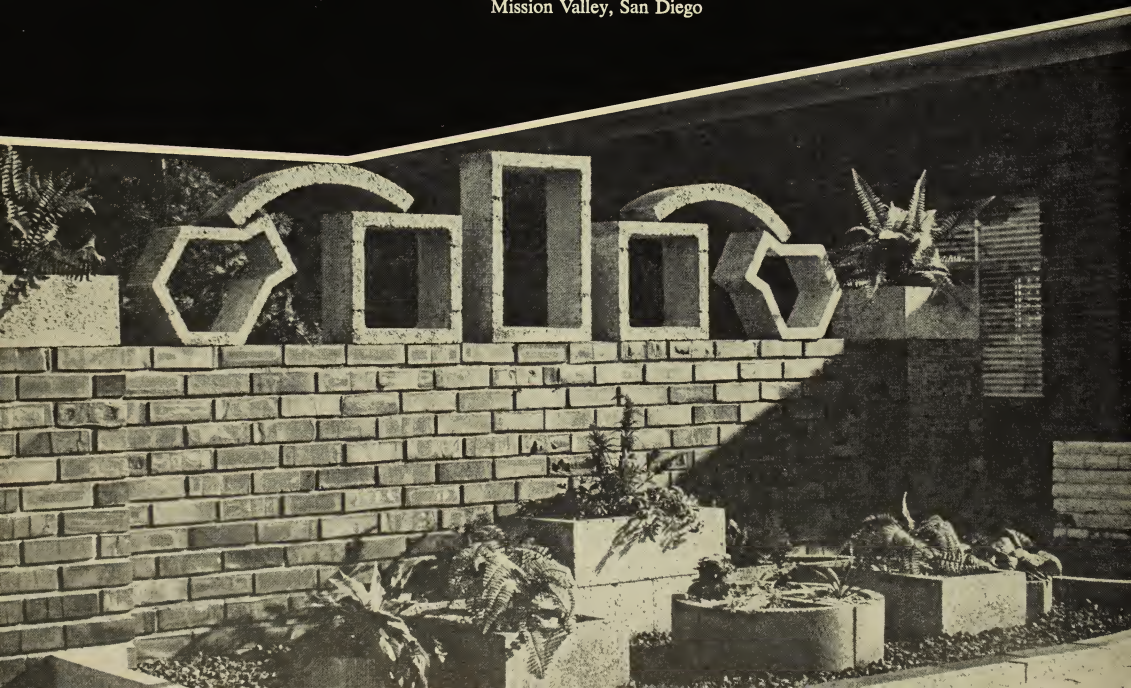
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